

CONCEPT: LIPIDS

16. Which of the following is true about sterols?

- a. all sterols share a fused ring structure
- b. sterols are found only in the membranes of living cells
- c. sterols are soluble in water and less so in organic solvents
- d. cholesterol is the main sterol in fungi
- e. the principle sterol in humans is ergosterol

17. The fluidity of the membrane is generally increased by:

- a. a decrease in temperature
- b. an increase in fatty acyl chain length
- c. binding of water to the fatty acyl side chains
- d. an increase in the number of double bonds in fatty acids
- e. an increase in the percentage of phosphatidylethanolamine

18. Sphingosine is not a component of:

- a. cardiolipin
- b. ceramide
- c. cerebrosides
- d. gangliosides
- e. sphingomyelin

19. Fatty acids are a component of:

- a. carotenes
- b. cerebrosides
- c. sterols
- d. vitamin D
- e. vitamin K

20. Which of the following statements concerning fatty acids is correct?

- a. A fatty acid is the precursor of prostaglandins
- b. Phosphatidic acid is a common fatty acid
- c. Fatty acids all contain one or more double bonds
- d. Fatty acids are constituent of sterols
- e. Fatty acids are strongly hydrophilic

21. Diagram phosphatidylcholine containing palmitoleic acid (16:1 Δ⁹) and dodecanoic acid (12:0)